

TIPS FOR GROWERS

To answer many questions regarding rootstocks in common use and varieties of citrus for commercial planting, the following information is presented. These are a few simple statements based on common knowledge and no attempt is made to discuss any point fully or scientifically. There are many varieties for both home and commercial use which are not mentioned, and those discussed are the varieties which are being propagated at our nurseries at the present time.

ROOTSTOCKS FOR CITRUS

Sour Orange: This stock is largely used on the heavier and damper hammock soils and flatwoods soils, on most soils in the northern part of the citrus belt and on the semi-muck and drained lands of the East Coast. It stands more cold than Rough Lemon stock. It produces a high quality fruit, somewhat higher in both juice and solids and does not dry out as readily as fruit on lemon stock. Trees growing on Sour Orange stock are slower growing and do not bear quite as heavily as trees on lemon stock.

Rough Lemon: Used more extensively at the present time than any other rootstock. Adapted to higher, sandier, Norfolk soils. Has an extensive root system. With proper fertilization and management, including the use of the various "minor elements," good quality fruit can be produced. Trees on this stock grow quite rapidly.

Sweet Orange: This rootstock is adapted to well drained soils. It produces a thin skinned fruit of superior quality, but it does not stand drought quite as well as rough lemon or cleo rootstocks.

Cleopatra Mandarin: Commonly called Cleo. It is a popular rootstock for all except wet soils. It produces thin skinned, smooth fruit of high quality which hangs well beyond maturity without drying at the stem end. Increasing in popularity and use. Now being planted on well drained soils where Sour Orange stock was formerly used.

SPECIAL CITRUS FRUITS

Tangelos: Of all the different varieties of tangelos which have been developed there are 3 which are superior for commercial planting; namely, the Orlando, Seminole and Minneola. All three were developed by crossing Bowen grapefruit on the tangerine. More acreage has been planted to Orlando than the other varieties. It bears heavily, peels easily and is usually shipped for the Thanksgiving and Christmas markets. The Seminole is a highly colored tangelo, bears regularly and heavily and ripens in December but holds through February. The Minneola ripens still later on from February to April. It is very deep red in

color, is a good shipper and is very popular with the shippers of fancy citrus fruits. It has few seed and an excellent flavor, somewhat different from any of the other tangelos. It is a vigorous growing tree but does not fruit as heavily as the other varieties. These tangelos are well worth investigating and their popularity is increasing right along.

Temple Orange: This is a "kid glove" type of orange and is easily peeled like a tangerine. It is of the Mandarin family. We propagate it on Sour Orange, Cleo and Rough Lemon stock. The first two rootstocks produce superior fruits, thin skinned and juicy.

Persian Seedless Lime: This is the only commercial variety of lime recommended for planting in Florida. It is of a deep green color, very juicy and absolutely seedless. It should be planted in warm locations only, since it is more tender than the common orange.

Meyer Lemon: For home use only. It is very hardy, standing as much cold as grapefruit and will grow successfully where limes will not grow. It is the best variety for home use in Florida, being very juicy, hardy and ripening throughout the year. Budded on Rough Lemon and Cleo stock. It is not compatible with Sour Orange stock.

STANDARD VARIETIES

Early Oranges

Hamlin: A vigorous grower and ripens in October and November. Bears heavily and breaks color quickly. Sometimes criticized for poor quality and early drying out when grown on Rough Lemon root. Cleo stock helps overcome this and the proper use of the "minor elements" is especially helpful. It is a good orange on Sour Orange and Cleo stock. The fruit on Cleo is slightly larger than on Sour Orange stock.

Parson Brown: Very popular in some sections but does not break color as early as the Hamlin. We have a heavy producing strain of this variety. It does well on Sour Orange, Cleo and Rough Lemon root.

Surprise Navel: This is the best Navel orange for Florida. It is a good, consistent bearer, of excellent quality and is of medium to large size. It usually can be shipped from October 15th through January. It is far superior to the Washington Navel for Florida planting, since it does not become so large and coarse and bears more consistently. It does best on Sour Orange or Cleo root.

MID-SEASON VARIETIES

The following are the varieties we consider the best: Improved Pineapple and Jaffa.

Improved Pineapple: It is the best mid-season variety. Originated near Citra and is widely grown throughout the Citrus Belt.

Jaffa: It is very vigorous, is much more hardy than the Pineapple, is a heavy bearer and is becoming more popular

all the time. It has the reputation of being a regular and heavy bearer.

LATE VARIETIES

Valencia, Reasoner's Valencia and Lue Gim Gong

Valencia: This is the most popular variety of late maturing orange in Florida and California. It ripens in late spring but will hang until July. It has 2 to 6 seed per fruit and is popular with the fresh fruit trade and concentrators.

Reasoner's Valencia: This is a vigorous growing strain of Valencia which has a reputation for its vigor and good bearing qualities. The trees are heavy or thick foliaged which is a protection to both the fruit and twigs during cold spells.

Lue Gim Gong: A very hardy variety that will hang longer without drying at the stem end than the Valencia. Good quality and juicy. It is our latest orange and quite popular in some sections. Quite resistant to cold. Few people can distinguish the fruit from the Valencia.

GRAPEFRUIT

We propagate the following varieties: Duncan, Marsh Seedless, Red Blush and Thompson (Pink Seedless).

Duncan: Of the common or seeded varieties of grapefruit, the Duncan is the most popular variety and we propagate it regularly. It bears quite heavily and is especially desirable for sectionizing.

Marsh Seedless: It is too well known to need any description or comment. It is our standard seedless variety and may be shipped from October to July.

Red Blush: An excellent variety with deep red flesh. The "blush" comes through the rind. Very prolific.

Thompson: Also called Thompson Pink. It is a seedless variety with pink flesh.

For the last few years, the "Pinks" and "Reds" have sold much higher than the white or common grapefruit and they are becoming more popular all the time.

PLANTING THE YOUNG TREES

For those who are not familiar with the proper planting of citrus trees, the following suggestions are offered:

Plant the young trees at the same depth they were growing in the nursery. Do **not** plant deeper as they will not grow off as well. It is much better to plant a citrus tree a little too shallow than too deep, since it is easy to cultivate soil towards the trees when necessary and they are not as subject to foot-rot as deep planted trees.

Use plenty of water in planting the tree, puddling the soil around the roots with water, thus excluding the excess air. Two or three buckets of water can be used to advantage.

Give the trees one or two bucketsful of water again the second or third day after planting to settle dirt firmly

around the roots. This is extremely desirable and the expense is fully justified. Water them as often as necessary to keep them from wilting until the rainy season is well advanced. Do NOT let the young trees go into a severe wilt.

Scatter about $\frac{1}{2}$ pound of 4-7-5 or 5-5-5 fertilizer containing the secondaries of magnesium, copper and manganese thinly around the tree about 10 days after planting. Give them a light application of Young Tree Grower each five or six weeks after planting throughout the first growing season. It will certainly pay.

If planting is done in the winter, it is usually best to water the trees well and then "bank" them with dirt free of trash to a height of about 12 inches. Take the banks down after danger of freezing weather, usually about March 1st to 10th. Fertilize and cultivate the trees immediately. The banks will protect the trunks in the event of a freeze and cause the trees to sprout out first near the top which is quite desirable. It also conserves moisture during the dry winter months, and may save one or two waterings.

Where possible, strip harrow the trees every 10 days throughout the first summer and fall. If this cannot be done, keep weeds and grass down around the trees by shallow hoeing several times the first year. Grass and weeds can be mulched back around the trees after each fertilization.

For detailed information on raising a grove, get the necessary bulletins from your county agricultural agent. For the control of citrus diseases and insect pests, get a "Better Fruit Program" each year and follow the instructions. This is published by the Florida Citrus Commission at Lakeland and will be sent free for the asking.

We suggest you visit the Citrus Experiment Station at Lake Alfred at least once a year to meet the investigators and to observe the results of the research work being carried on.

OUR POLICY

To produce uniform trees of the very best parentage or breeding; to care for them in such manner that they will be properly matured for transplanting; to deliver our trees in good condition; to charge reasonable prices for quality trees and render such service that our customers will come back for trees each time when needed and recommend us to their friends and neighbors.

We will gladly send our price list at any time or give additional information when requested.

WARD'S NURSERY

AVON PARK, FLORIDA